

AN ASIATIC TINGID NEW TO NORTH AMERICA
(HETEROPTERA)

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In studying a collection of Tingidae from the New Haven Connecticut Agricultural Experiment Station, two somewhat damaged specimens of an unfamiliar *Stephanitis* were noted. Since no description of the species could be found in the literature dealing with American species, they were sent to Dr. Reece I. Sailer for determination. They proved to be *Stephanitis globulifera* (Matsumura) when compared with specimens in the National Museum. The species was first described by Matsumura as *Tingis globulifera* in 1905. Later Horváth (1912) properly transferred it to the genus *Stephanitis* and redescribed it in some detail. In a 1930 publication Matsumura supplied an English translation of the description which is not very satisfactory and a very small, unsatisfactory figure is also given. Since these three references are not generally available, it seems desirable to include a brief comparative description of this recent addition to our insect fauna.

The two specimens mentioned above were sent to the Experiment Station by Mrs. L. B. Winton of Greenwich in late October of 1946. Therefore, correspondence was initiated to gather more details of their occurrence. Mrs. Winton kindly kept me well informed concerning the appearance and development of the population in her garden during the summer of 1950. However, it was after mid-August before many adults were observed. On August twenty-third I visited her garden and found a heavy infestation of nymphs and adults (mostly somewhat teneral) on a splendid specimen of *Pieris japonica* (Thunb.) Don planted in a sheltered corner between the house and an open porch. More than 150 adults were collected in a few minutes and a score or so more were kept alive for further study.

Mrs. Winton reported that the lace-bugs were first troublesome on the *Pieris* in 1945. By the following year they were destructively abundant. For a time she considered removal of the host plant because it was so seriously injured by them. However, by frequent

spraying, continued intermittently even throughout the mild winter of 1949-50, the population was somewhat controlled and the plant was still vigorous at the time of my visit.

The late appearance of the adults suggests that this species overwinters in the egg stage as do the other two species of *Stephanitis* that occur in New England and that also infest members of the plant family Ericaceae. Of added interest is the fact that *Stephanitis pyrioides* (Scott) was collected on a deciduous azalea on the opposite side of the house. This species was not found on *Pieris*. However, a few specimens of *S. globulifera* were associated with *S. pyrioides* on the azalea. Such other ericaceous plants as *Kalmia* and *Rhododendron* in her garden supported no lace-bugs at that time.

It is evident that this recently introduced species may become a serious pest of *Pieris* and possibly of other ornamental Ericaceae. Through Dr. C. L. Remington I learn that for two or three years the nurserymen of Fairfield County, Connecticut have complained of serious damage to *Pieris* by lace-bugs. Since other species are not known to feed on that host, it is apparent that *S. globulifera* is already well established. At this time it is only possible to suggest that eggs of the species were probably introduced before 1945 in the foliage of evergreens shipped from Japan or elsewhere. Mrs. Winton knew of infested plants in four or five gardens within three to eight miles of her home. She thought these infestations were probably of earlier origin than the one on her *Pieris*.

The following notes provide criteria for the identification of the three species of *Stephanitis* now established in the northeast. Both *S. pyrioides* (Scott) and *S. globulifera* (Matsumura) may be readily distinguished from *S. rhododendri* Horváth by their somewhat greater length, by their darker hood and hemielytral markings (which become intensely black in *S. globulifera*), by their much more inflated hoods (again extreme in *S. globulifera*), and by their much abbreviated lateral carinae. The paranota of *S. rhododendri* flare conspicuously. This species also differs from both the other species in the greater width of the hemielytra and in the abundance of silky setae on all the nervures of the membranous parts.

The differences between *S. pyrioides* and *S. globulifera* are less obvious, but, nevertheless, pronounced. The most noticeable distinguishing features include the conspicuously dark color pattern of *S. globulifera*. In this species the entire hood of mature specimens is black. All the pronotal (including paranotal) nervures, except

the apex of the median carina, are black as are most of the hemielytral nervures. Areolae of the hood, the discoidal, and the sutural areas are fumeus as are the cells of the basal and apical bands. Although the color pattern of *S. pyrioides* is similar, the paranota and the discoidal elevations are nearly colorless and in all areas the coloration is brownish and much less intense. Only the areolae of the hemielytral bands are fully infuscated.

Interesting differences are seen in the relative proportions of the hoods and pronotal carinae of these two species. In *S. globulifera* the much inflated, globose hood is twice as high at its peak as the crest of the median carina while in *S. pyrioides* the hood and carina are sub-equal in height. Both species have the lateral carinae much reduced in length as compared with *S. rhododendri*. However, in *S. globulifera* they are half again as long as the distance between their anterior ends and the back of the hood while in *S. pyrioides* they are about as long as the distance between their anterior ends and the back of the hood. In *S. globulifera* the hood is much wider than the distance between the lateral carinae while in *S. pyrioides* the hood is only slightly wider. Both species have the paranota almost vertical rather than flaring as in *S. rhododendri*. Although differences in the relative lengths of the antennites and differences in other features can be shown, they are slight and those indicated are adequate for the ready separation of the three species now occurring in New England.

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